

R E M A R K S

Claims 1-3 and 6-9 are pending in this application. No new matter has been added by way of the present amendments. For instance, the definition for "M" in claim 9 has been amended to recite a hydrogen atom, an alkaline metal atom and pyridinium group as supported by the originally filed claims. This is consistent with the language in claim 1. Additionally, an inadvertent typographical error has been corrected in the specification. That is, in the Table at page 28, the recitation of "Comp. I-4" at line 27 has been corrected to read "Comp. I-22" as supported by the present specification at page 27, lines 33-35. Accordingly, no new matter has been added.

No new issues have been added by way of the present amendment. Applicants have simply amended claim 9 to adopt language similar to the language in claim 1 and to remove an issue under 35 U.S.C. § 112, first paragraph. By way of this amendment, the Examiner has not been presented with the burden of additional search and/or consideration. Accordingly, no new issues have been raised.

In the event that the present submission does not place the application into condition for allowance, entry thereof is respectfully requested as placing the application into better form for appeal.

In view of the following remarks, Applicants respectfully request that the Examiner withdraw all outstanding rejections and allow the currently pending claims.

Issues Under 35 U.S.C. § 112, First Paragraph

The Examiner has rejected claim 9 under 35 U.S.C. § 112, first paragraph, for the reasons recited at pages 2-4 of the outstanding Office Action. Applicants respectfully traverse.

The Examiner has asserted that the specification, while being enabling for a rapid solubility at 40°C and a lack of deposit upon subsequent cooling to 0°C for compounds 1-1, 1-2 and 1-4 at 20 g per 100 mL does not reasonably allegedly provide enablement for variously substituted structurally diverse compounds. Applicants disagree with this rejection for the same reasons argued in the Amendment filed April 21, 2004.

Regardless, in an effort to further prosecution, Applicants have amended claim 9 to limit the specific "M" group to those already defined in claim 1. At page 4, last full paragraph of the outstanding Office Action, the Examiner indicates that such amendments to claim 9 would obviate this rejection.

Reconsideration and withdrawal of this rejection are respectfully requested.

Issues Under 35 U.S.C. § 103(a)

The Examiner has rejected claims 1-3 and 6-9 under 35 U.S.C. § 103(a) as being obvious over Buell '363 in view of Deguchi '742. Applicants respectfully traverse this rejection.

The Present Invention and its Advantages

Prior to the present invention, many compounds having a 4,4'-bis(1,3,5-triazinylamino)stilbene-2,2-disulfonic acid skeleton were known. The improvements provided by the present invention reside in that a sulfonylalkylamino group and a hydroxylalkylamino group having at least two hydroxyl groups are attached to each triazine ring in the 2-position and 4-position, respectively. This improvement imparts enhanced water solubility and enhanced dissolution rate to the known compounds having a 4,4'-bis(1,3,5-triazinylamino)stilbene-2,2-disulfonic acid skeleton.

Buell '363 discloses a compound having a 4,4'-bis(1,3,5-triazinylamino)stilbene-2,2-disulfonic acid skeleton in which a hydroxyalkylamino group having two hydroxyl groups is attached to each triazine ring in both of the 2-position and the 4-position (see column 1, lines 55-60 and column 3, lines 10-20 of Buell '363). Buell '363 also refers to a compound having a 4,4'-bis(1,3,5-triazinylamino)stilbene-2,2-disulfonic acid skeleton in which a sulfonylalkylamino group and a hydroxylalkylamino group

having one hydroxyl group is attached to each triazine ring in the 2-position and 4-position, respectively.

Thus, Buell '363 fails to suggest or disclose that the attachment of a sulfonylalkylamino group and a hydroxylalkylamino group having at least two hydroxyl groups to each triazine ring in the 2-position and 4-position, respectively in a compound having a 4,4'-bis(1,3,5-triazinylamino)stilbene-2,2-disulfonic acid skeleton.

Deguchi '742 discloses a compound having a 4,4'-bis(1,3,5-triazinylamino)-stilbene-2,2-disulfonic acid skeleton in which a sulfonylalkylamino group is attached to the 2-position or 4-position. In other positions, namely, 4-position or 2-position, respectively, there is placed the same sulfonylalkylamino group or a carboxy-alkylamino group. Deguchi '742 further discloses a compound having 4,4'-bis-(1,3,5-triazinylamino)stilbene-2,2-disulfonic acid skeleton in which a di(sulfonylethyl)amino group and a monohydroxyethylamino group are attached to the 2-position and 4-position. See Deguchi '742 at columns 7-8.

Thus, neither Buell '363 nor Deguchi '742 suggest or disclose the concept that a combination of a sulfonylalkylamino group and a hydroxylalkylamino group having at least two hydroxyl groups attached to each triazine ring in a compound having a 4,4'-bis(1,3,5-triazinylamino)stilbene-2,2-disulfonic acid skeleton. No motivation is seen in either reference to incorporate

the combination of a sulfonylalkylamino group and a hydroxylalkylamino group having at least two hydroxyl groups into each triazine group. Thus, there exists no *prima facie* case of obviousness. Based on this failure above, the rejection should be withdrawn.

The Examiner is not free to select specific substituents from the disclosure of the respective references of Buell '363 and Deguchi '742 and combine these substituents to arrive at the presently claimed compounds. Applicants remind the Examiner that the fact that a claimed product is within the broad field of the prior art and one might arrive at it by selecting specific items and conditions does not render the product obvious in the absence of some directions or reasons for making such selection. Ex parte Kuhn, 132 USPQ 359 (POBA 1961). Similarly, a compound within the scope of a generic formula which encompasses more than 100 million compounds cannot render a product obvious absent some direction or reasons for selecting the substituents required to arrive at the compound. In re Baird, 29 USPQ2d 1550, 16 F.2d 380 (Fed. Cir. 1994).

At most the Examiner's rejection amounts to an "obvious to try" standard, which is improper in the presentation of a *prima facie* case of obviousness. "Obvious to try" is not a valid test of patentability. In re Mercier, 185 USPQ 774 (CCPA 1975); see also

Hybritech Inc. v. Monoclonal Antibodies, 231 USPQ 81 (Fed. Cir. 1986).

Accordingly, the Examiner has failed to present a valid *prima facie* case of obviousness. However, even if the Examiner has hypothetically presented a valid *prima facie* case of obviousness, a point not conceded by Applicants, the present invention achieves unexpectedly superior results compared to Buell '363. It has been experimentally shown by the previously filed Declaration that the compound claimed in Buell '363 has poor solubility, as compared with our claimed compounds. Further, it has experimentally shown in the specification that compounds having 4,4'-bis(1,3,5-triazinylamino)stilbene-2,2-disulfonic acid skeleton in which a di(sulfonylethyl)amino group and a monohydroxyethylamino group are attached (Comparison compounds a, b, c and d) also show poor solubility. However, the Examiner has criticized these results. Applicants disagree and now address each point of criticism raised by the Examiner.

(1) Paragraph 1 at page 6-7 of the outstanding Office Action

The Examiner criticizes to the description of "some insoluble remained in 300 sec." Please note that this description is placed in contrast to the description "dissolved within a certain period of second". The difference of the description clearly teaches that

there is apparent difference of solubility between the tested compounds.

(2) Paragraph 2 at page 7 of the outstanding Office Action

The Examiner has asserted that Applicants have not established criteria for solubility and storage parameters. Applicants disagree. Note that the claimed diaminostilbene compound is employed as a fluorescent brightener. Dependent on an aimed use, an amount of a fluorescent brightener is determined. In any case, that is for instance, in any concentrations and at any temperatures, it is desired the brightener dissolves in a shorter time of period. Accordingly, the experiments utilizing the concentration and the temperatures described in the present specification and Declaration are regarded to indicate representative behavior of the tested compounds.

(3) Paragraph 3 at page 7-8 of the outstanding Office Action

Please note that all of the compounds shown in the Table on page 28 are compounds having 4,4'-bis(1,3,5-triazinylamino)stilbene-2,2-disulfonic acid skeleton in which a sulfonylalkylamino group and a hydroxylalkylamino group having at least two hydroxyl groups are attached to each triazine ring in the 2-position and 4-position, respectively, and embody the presently claimed compounds. In contrast, the comparative compounds a, b, c

and d in the Table embody the compounds described in Deguchi '742 and the comparative compound set forth in the Declaration embodies the compound claimed in Buell '363. Accordingly, the combination of the comparative experiments of the present specification and Declaration are as proper for showing advantageous behavior of our claimed compounds over the compounds of Buell '363 and Deguchi '742.

(4) Paragraph 4 at page 8 of the outstanding Office Action

The Examiner has noted a discrepancy in the Table on page 28. Applicants have made appropriate correction. For instance, "Comp. 1-4" (below Comp. 1-12) is erroneously identified. Rather, "Comp. 1-4" should read "Comp. 1-22", as is described on page 27, line 33 of the present specification.

(5) Paragraph 5 at page 8 of the outstanding Office Action

The Examiner asserts that "30 sec" has been emphasized but the Examples allow for variation. Applicants do not emphasize "30 sec" (or perhaps the Examiner refers to 300 sec.) dissolution but emphasize that the solution placed in an aqueous medium should be dissolved as soon as possible so that the desired solution can be obtained within a shorter time period, from the viewpoint of industrially employable procedures. Thus, the "300 sec." shown in the Table 28 is not an authorized period but an optionally

determined period. At any rate, it is preferred that the compound is dissolved in the aqueous medium within a shorter period of time.

Accordingly, it is apparent that the present invention achieves unexpectedly superior results with respect to the cited art. In view of the above, Applicants respectfully submit that the present claims define subject matter that is patentable over the cited art. Reconsideration and withdrawal of this rejection are respectfully requested.


Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Craig M. McRobbie (Reg. No. 42,874) at the telephone number of the undersigned below.

Pursuant to 37 C.F.R. §§ 1.17 and 1.136(a), Applicants respectfully petition for a three (3) month extension of time for filing a reply in connection with the present application, and the required fee of \$1,020.00 is being paid concurrently with a Notice of Appeal attached hereto.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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